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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|---|-----------------|----------------------|--------------------------|-----------------|
| 09/813,827 | 03/22/2001 | Hiroshi Hamasaki | 204404US-2RD | 3081 |
| 22850 | 7590 10/29/2002 | | | |
| OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC | | | EXAMINER | |
| FOURTH FLOOR 1755 JEFFERSON DAVIS HIGHWAY ARLINGTON, VA 22202 | | ROSE, KIESHA L | | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2822 | |
| | | | DATE MAIL ED: 10/29/2002 | , |

Please find below and/or attached an Office communication concerning this application or proceeding.

| • | Application No. | Applicant(s) | | | | |
|---|--|--|--|--|--|--|
| | 09/813,827 | HAMASAKI, HIROSHI | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Kiesha L. Rose | 2822 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | |
| Status | O-t-h 0000 | | | | | |
| <u>'</u> | Responsive to communication(s) filed on <u>15 October 2002</u> . | | | | | |
| , <u> </u> | nis action is non-final. | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 1-22 is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-22</u> is/are rejected. | | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | |
| 12) The oath or declaration is objected to by the Examiner. | | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a) ⊠ All b) ☐ Some * c) ☐ None of: | | | | | | |
| | 1. Certified copies of the priority documents have been received. | | | | | |
| <u> </u> | 2. Certified copies of the priority documents have been received in Application No | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | | |
| a) ☐ The translation of the foreign language provisional application has been received. 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) Notice of Informal | y (PTO-413) Paper No(s) Patent Application (PTO-152) | | | | |



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DETAILED ACTION

This Office Action is in response to the RCE filed 15 October 2002.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-22 are indefinite because they are referring to a first semiconductor layer with a plurality of first conductive type semiconductor regions formed on a surface of the semiconductor layer where the second conductive type layer surrounds the first semiconductor regions with portions of the semiconductor layer therebetween. It is unclear how the structure of the lightreceiving device will be formed when the second conductive type semiconductor region is formed on the surface of the first semiconductor layer and surrounds the plurality of first semiconductor regions that are formed in the first semiconductor layer. The limitations are unclear and therefore do not clearly distinguish the invention.

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection. The amendment filed 10 September



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2002 has been noted but the claims are still vague and indefinite in regards to the first semiconductor layer and the first and second conductivity type regions and how the second semiconductor region is formed on the first semiconductor layer and the first semiconductor regions are formed being formed apart from each other with the first semiconductor layers being formed between the first and second semiconductor regions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiesha L. Rose whose telephone number is 703-605-4212. The examiner can normally be reached on M-F 8:30-6:00 off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 703-308-4905. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KLR October 23, 2002

AMIR ZARABIAN

PERVISORY PATENT EXAMINER

CHNOLOGY CENTER 2800